

CLAIMS

1. A manufacturing method for a plasma display panel by which electrodes are formed on a surface of a substrate in a first process and a dielectric glass layer is formed on the electrodes
5 in a second process, the second process comprising:

a grinding step for grinding a dielectric glass material;

a spheroidizing step for converting each particle of the ground dielectric glass material into a spheroidal form;

10 an applying step for applying a mixture of the spheroidal dielectric glass particles and a binder, as a layer, to the surface of the substrate on which the electrodes are formed; and

a firing step for firing the layer to remove the binder from
15 the layer, thereby forming a dielectric glass layer.

2. The manufacturing method of Claim 1,

wherein the spheroidizing step is performed by melting the surface of particles of the ground dielectric glass material.

20

3. The manufacturing method of Claim 2,

wherein the melting is performed by putting the particles of the ground dielectric glass material into a plasma jet.

4. The manufacturing method of Claim 2,

wherein the melting is performed by exposing the particles of the ground dielectric glass material to an atmosphere at a temperature no higher than the softening point of the particles.

5

5. The manufacturing method of Claim 1,

wherein the spheroidizing step is performed by having the particles of the glass material collide with one another in high-speed gas flows.

10

6. The manufacturing method of Claim 1,

wherein the second process further comprises a step of classifying the glass particles, which is performed between the spheroidizing step and the applying step, so that a maximum diameter of the spheroidal particles of the dielectric glass material does not exceed a half thickness of the dielectric glass layer after the firing step.

15

7. The manufacturing method of Claim 1,

20

wherein the applying step is performed by placing a dielectric glass sheet on the surface of the substrate, the dielectric glass sheet being obtained by mixing the spheroidal glass particles with a thermoplastic resin.

8. An image display apparatus, comprising:

a plasma display panel manufactured by one of the methods
of Claims 1 to 7; and

a driving circuit for driving the plasma display panel.

5

TOP SECRET